

**PERCENTAGE LOG OF WATER-WELL CUTTINGS**  
**UTAH GEOLOGICAL SURVEY**

DWRi Appropriation #: 06-29-003-M00  
 Location: (B-9-1)27daa, Box Elder County  
 Driller: Wright Drilling

Well Owner: Town of Mantua  
 Win #: 428521  
 Geologist: Janae Wallace, 8/11/08

Depth Range (feet)		PERCENTAGES				COMMENTS
		unconsolidated			con*	
		clay	ss*	grv*	dol*	
0	3	0	0	0	0	no sample
3	10	tr	20	80	0	light brown silt, sand, and trace clay with white, purple, and green gravel; sand is fine to coarse; gravel <sup>+</sup> is angular to subangular and consists of quartzite and sandstone; maximum clast size (MCS) is 2 cm, average clast size (ACS) is 1 cm; non calcareous
10	20	tr	20	80	0	“ MCS is 1 cm, ACS is 0.5 cm
20	30	tr	80	20	0	“ MCS is 1 cm, ACS is 0.5 cm
30	40	tr	60	40	0	“ gravel is angular to subrounded; ACS is 1 cm, ACS is 0.5 cm
40	50	0	0	0	0	no sample
50	60	2	96	2	0	light brown clay, silt, sand and white, purple, and green gravel; sand is fine to coarse; gravel is angular to subrounded and consists of quartzite and sandstone; MCS is 0.5 cm, ACS is 0.3 cm; non calcareous
60	70	2	96	2	0	“ MCS is 0.5 cm, ACS is 0.3 cm
70	80	2	96	2	0	“ MCS is 0.5 cm, ACS is 0.3 cm
80	90	0	0	0	0	no sample

\*con=consolidated; ss=silt and sand; grv=gravel; dol=dolomite/dolostone; <sup>+</sup>estimated clast size and angular nature may result from drill-bit action and is not necessarily a clast characteristic

Depth Range (feet)		PERCENTAGES				COMMENTS
		unconsolidated			con*	
		clay	ss*	grv*	dol*	
90	100	2	96	2	0	light brown clay, silt, sand and white, purple, and green gravel; sand is fine to coarse; gravel is angular to subrounded and consists of quartzite and sandstone; MCS is 1 cm, ACS is 0.3 cm; non calcareous
100	110	5	75	20	0	“ purple brown; MCS is 1 cm, ACS is 0.5 cm
110	120	10	80	10	0	“ light brown; MCS is 0.5 cm, ACS is 0.3 cm
120	130	2	96	2	0	“ gravel is white, pink, gray, and green; MCS is 0.5 cm, ACS is 0.3 cm
130	140	0	0	0	0	no sample
140	150	2	96	2	0	light brown clay, silt, sand and white, pink, gray, and green gravel; sand is fine to coarse; gravel is angular to subrounded and consists of quartzite and sandstone; MCS is 0.5 cm, ACS is 0.3 cm; non calcareous
150	160	5	90	5	0	“ MCS is 0.5 cm, ACS is 0.3 cm
160	170	5	75	20	0	“ MCS Is 0.5 cm, ACS is 0.3 cm
170	180	0	0	0	0	no sample
180	190	2	80	18	0	light brown clay, silt, sand and white, pink, gray, and green gravel; sand is fine to coarse; gravel is angular to subrounded and consists of quartzite and sandstone; MCS is 0.5 cm, ACS is 0.3 cm; non calcareous
190	200	5	75	20	0	“ MCS is 0.5 cm, ACS is 0.3 cm
200	210	0	0	0	0	no sample

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Depth Range (feet)		PERCENTAGES				COMMENTS
		unconsolidated			con*	
		clay	ss*	grv*	dol*	
210	220	0	100	0	0	yellow-tan very fine to coarse sand composed dominantly of quartz with feldspar, rock fragments, and mafic minerals; non calcareous (washed sample- per drillers' label on sample bag)
220	252	0	0	0	0	no sample
252	257	10	80	10	0	brown clay, silt, and sand with pink, gray, white, green, and brown gravel; gravel; is angular to subangular and consists of quartzite and sandstone; MCS is 1.5 cm, ACS is 0.3 cm; slightly calcareous
257	267	0	90	10	0	light brown and yellow tan fine to coarse sand and gravel; gravel is angular and consists of quartzite, pebbly quartzite, and trace black slate; MCS is 1 cm, ACS is 0.3 cm; non calcareous (driller's log indicates dolomite bedrock from this interval to TD, cuttings in sample bag are heterolithic clasts)
267	277	0	0	100	0	brown, gray, pink, green, and orange gravel composed of quartzite, pebbly quartzite, dolomite, and trace schist; MCS is 1 cm, ACS is 1 cm; slightly calcareous
277	287	0	0	100	0	gray, tan, and yellow-orange angular to subrounded gravel composed of dolomite, brecciated limestone, quartzite, sandstone, pebbly quartzite, and bull quartz; MCS is 2.5 cm, ACS is 1 cm; non calcareous
287	290	0	0	0	0	no sample
290	300	0	0	0	100	gray sparry dolostone/dolomite with dolomitic rhombs; slightly calcareous; Cambrian dolostone (possibly Ute Formation based on yellow minerals and brecciated nature at 340')

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Depth Range (feet)		PERCENTAGES				COMMENTS
		unconsolidated			con*	
		clay	ss*	grv*	dol*	
300	310	0	0	0	100	gray sparry dolostone/dolomite with dolomitic rhombs; slightly calcareous
310	320	0	0	0	100	“
320	330	0	0	0	100	“
330	340	0	0	0	100	“
340	350	0	0	0	100	gray and yellow dolostone/dolomite with dolomitic rhombs; brecciated and/or fractured interval with yellow minerals (citrine?); slightly calcareous
350	364	0	0	0	100	“ gray and minor yellow

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